

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of The Empire District Electric Company)
of Joplin, Missouri for Authority to File Tariffs Increasing)
Rates for Electric Service Provided to Customers in the)
Missouri Service Area of the Company.)

Case No. ER-2010-0130

STIPULATION AND JOINT REQUESTS REGARDING PLUM POINT

COME NOW The Empire District Electric Company (“Empire”), the Staff of the Missouri Public Service Commission (“Staff”), and the Office of the Public Counsel, (collectively, the “Signatory Parties”) and respectfully stipulate and request as follows:

1. As used in this Stipulation, the following terms shall have the meanings indicated:

Fully Operational and Used for Service – full compliance with criteria which must be met respecting any facility or property in order for any electrical corporation to make or demand any charge for service under applicable law, and Empire’s Experimental Regulatory Plan Stipulation, Appendix B In-Service Test Criteria, Case No. EO-2005-0263.

Plum Point – a generating unit with a projected capacity of approximately 665 MW, located near Osceola, Arkansas, which is jointly owned by Empire and certain others.

2. Empire and Staff agree that Plum Point achieved full compliance with the criteria indicated in Appendix B “In-Service Test Criteria,” to Empire’s Experimental Regulatory Plan Stipulation, filed in Case No. EO-2005-0263, as of August 13, 2010, as described in the attached verified Staff Memorandum, Exhibit 1.

3. The Signatory Parties request that the Commission admit Exhibit 1 as evidence that Plum Point met full compliance with the In-Service Test Criteria as of August 13, 2010.

4. The Signatory Parties request that the Commission determine that Plum Point is Fully Operational and Used for Service as of August 13, 2010.

5. The Signatory Parties request that the Commission order Empire to file revised tariff sheets containing rate schedules in conformance with Appendix A to the May 12, 2010, *Non-Unanimous Stipulation and Agreement*, approved by order of the Commission May 19, 2010. The Signatory Parties will support a reasonable request by Empire for expedited treatment such that the tariffs become effective on September 10, 2010.

6. The Signatory Parties request the Commission cancel the hearing that has been set in this matter for August 20, 2010, or alternatively, that if the Commission orders a hearing or presentation regarding this Stipulation, that it make use of the August 20, 2010, hearing date.

7. The Signatory Parties represent that they have been informed by counsel for the Missouri Department of Natural Resources, the Midwest Energy Users' Association, Kansas City Power & Light Company, and the City of Joplin, Missouri, that those parties do not object to this Stipulation or cancellation of the August 20, 2010, hearing.

Effect of this Stipulation

8. None of the Signatory Parties shall be deemed to have approved or acquiesced in any questions of Commission authority, accounting authority order principle, cost of capital methodology, capital structure, decommissioning methodology, ratemaking principle, valuation methodology, cost of service methodology or determination, depreciation principle or method, rate design methodology, cost allocation, cost recovery, or prudence that may underlie this Stipulation or for which provision is made in this Stipulation.

9. This Stipulation is based on the unique circumstances that are presented and represented by Empire to the non-utility Signatory Parties. This Stipulation shall not be construed to have precedential impact in any other Commission proceeding.

10. The non-utility Signatory Parties enter into this Stipulation in reliance upon information provided to them by Empire and this Stipulation is explicitly predicated upon the truth of representations made by Empire. In the event that the Commission finds that Empire failed to provide the non-utility Signatory Parties with material and relevant information in Empire's possession, or that should have been available to Empire through reasonable investigation or the exercise of due diligence in seeking to obtain such information, or in the event that the Commission finds that Empire misrepresented material facts relevant to this Stipulation, this Stipulation shall be rendered null and void and of no force or effect even if it has been approved by the Commission.

11. This Stipulation represents a negotiated settlement of all issues contained herein. Except as specified herein, the Signatory Parties shall not be prejudiced, bound by, or in any way affected by the

terms of this Stipulation: (a) in any future proceeding; (b) in any proceeding currently pending under a separate docket number; and/or (c) in this proceeding should the Commission decide not to unconditionally approve this Stipulation.

12. The provisions of this Stipulation have resulted from negotiations among the Signatory Parties and are interdependent. In the event the Commission does not approve and adopt the terms of this Stipulation as a whole and without conditions, it shall be void and no party hereto shall be bound, prejudiced, or in any way affected by any of the agreements or provisions contained herein.

13. When approved and adopted by the Commission, this Stipulation shall constitute a binding agreement among the Signatory Parties hereto. The Signatory Parties shall cooperate in defending the validity and enforceability of this Stipulation and the operation of this Stipulation according to its terms. No Signatory Party shall take any action to discourage the approval of the Stipulation by the Commission.

14. This Stipulation does not constitute a contract with the Commission. Acceptance of this Stipulation by the Commission shall not be deemed to constitute an agreement on the part of the Commission to forego any investigative or other power that the Commission has. Nothing in this Stipulation is intended to impinge on or restrict, in any manner, the exercise by the Commission of any statutory right, including the right to access information, or any statutory obligation. Nothing in this Stipulation is intended to impinge on, restrict, or limit, in any way, the investigative powers of the Office of the Public Counsel, including its rights to access information and investigate matters related to Empire. The Signatory Parties to this Stipulation can only bind themselves. The Signatory Parties to this Stipulation cannot bind non-signatories or the Commission itself.

15. This Stipulation contains the entire agreement of the Signatory Parties. Silence in this Stipulation on a particular topic or issue indicates that the Signatory Parties reached no agreement regarding that topic or issue.

16. All of the obligations and conditions Empire agrees to and assumes in this Stipulation shall be binding upon any division, affiliate, successor, or assignee of Empire in the same manner and to the same extent as Empire.

17. This Stipulation, if approved by the Commission, will be deemed to have become effective as of the date the order of the Commission approving this Stipulation becomes effective.

18. The Signatory Parties agree that disputes related to the implementation, operation, and interpretation of this Stipulation can be taken to the Commission for resolution.

WHEREFORE, the Signatory Parties respectfully request that the Commission (1) approve this Stipulation, (2) admit Exhibit 1, (3) determine and find that Plum Point is Fully Operational and Used for Service as of August 13, 2010, (4) order Empire to file revised tariff sheets containing rate schedules in conformance with Appendix A to the May 12, 2010 *Non-Unanimous Stipulation and Agreement*, and (5) cancel the August 20, 2010, hearing, unless it requires a Stipulation presentation.

Respectfully submitted,

THE EMPIRE DISTRICT ELECTRIC COMPANY

/s/ Diana Carter

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CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, transmitted by facsimile or electronically mailed to all counsel of record this 16th day of August, 2010.

/s/ Sarah Kliethermes

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case No. ER-2010-0130
The Empire District Electric Company

FROM: David Elliott, Utility Engineering Specialist III

/s/ David Elliott 8/16/2010 /s/ Sarah Kliethermes 8/16/2010
Energy Department / Date Staff Counsels' Office / Date

SUBJECT: Staff finding of full compliance with the Plum Point generating unit in-service criteria

DATE: August 13, 2010

Based on its review of the data provided and trips it made to the Plum Point site to observe the generating unit, Staff finds that the Plum Point generating unit is in full compliance with the criteria in Empire's Experimental Regulatory Plan Stipulation, Appendix B In-Service Test Criteria, Case No. EO-2005-0263.

Plum Point Unit 1 In-Service Test Criteria

1. Unit must demonstrate that it can operate at its design minimum load or above.

(Clarification: design minimum load = 266 MWnet)

Hours at or above design minimum load / 400 hours \geq 0.80

Staff reviewed June operating data for unit.

Unit operated at or above its design minimum load of 266 MWnet for 342 hours (88% or 0.88) of 400 hours.

Unit has satisfied this criterion.

2. Unit must be able to operate at or above its design capacity factor for a reasonable period of time. If the design capacity factor is not specified it will be assumed to be 0.60 unless the utility can offer evidence justifying a lower value.

(Clarification: design full load= 665 MWnet)

Design capacity factor \leq $\frac{\text{energy generated for a continuous period of 168 hours}}{\text{(design full load x 168 hours)}}$

Staff reviewed June operating data for unit.

Unit achieved a capacity factor of 0.735 for a continuous 168 hours at its design full load of 665 MWnet.

Unit has satisfied this criterion.

3. Unit must operate at an average capacity equal to 98% of its design maximum continuous rating for four (4) hours.

(Clarification: Max continuous rating @ 665 Mwnet)

Staff reviewed June operating data for unit.

Unit achieved a capacity factor of 0.9981 for 4 hours at its design maximum continuous rating of 665 MWnet.

Unit has satisfied this criterion.

4. Unit must be operated so as to show a clear and obvious trend toward the predominate use of coal as its primary fuel. Test period will be thirty (30) days. The following items will be used as an indication of the trend for coal operation:

Unit has satisfied this criterion.

- a) Boiler control tuning completed such that the unit can operate safely with all control systems in auto.

Staff reviewed 08-02-2010 plant operation control data. Staff observed plant operation. Staff reviewed project punch list as of August 2010.

Unit operated in DCS auto mode for an eight hour period.

- b) Ash build up in the furnace and backpass areas shall be monitored and be within expected levels.

Staff reviewed control room operator's log for July and August. Staff reviewed project punch list as of August 2010. Staff toured site on 08-08-10 and 08-09-10.

Unit operating with no significant ash build up issues.

- c) All boiler/turbine interlocks shall be proven to work as designed.

Staff reviewed control room operator's log for July and August 2010. Staff reviewed project punch list as of August 2010. Staff toured site on 08-08-10 and 08-09-10.

Unit interlock system is operational.

- d) Sootblowing timing and sequences shall be set properly to clean the tube areas.

Staff reviewed control room operator's log for July and August 2010. Staff reviewed project punch list as of August 2010. Staff toured site on 08-08-10 and 08-09-10.

Unit sootblowing system is operational.

- e) All critical alarms brought into the control room shall be operational and functioning properly.

Staff reviewed control room operator's log for July and August 2010. Staff reviewed project punch list as of August 2010. Staff toured site on 08-08-10 and 08-09-10.

Alarm system is operational.

- f) At the end of the test period, oil burn levels, if applicable, will be at or near design levels while burning coal.

Staff reviewed unit operation data. Staff reviewed project punch list as of August 2010. Staff reviewed daily fuel burned spreadsheet.

Unit able to burn coal without oil ignitors.

- g) Oil ignitors are functioning in accordance with specifications.

Staff reviewed control room operator's log for July and August. Staff reviewed project punch list as of August 2010. Staff toured site on 08-08-10 and 08-09-10.

Oil ignitor system is operational.

Additional criterion:

- h) Coal handling systems, from rail car unloading to pulverizers, are capable of supplying primary fuel for sustained operation during the testing period.

Staff reviewed control room operator's log for July and August 2010. Staff reviewed project punch list as of August 2010. Staff toured site on 08-08-10 and 08-09-10.

Coal handling system is operational.

5. Unit must have successfully completed all major equipment startup test procedures.

(Clarification: All major equipment also operates satisfactorily to support compliance with in-service criteria 1 through 4 (as listed above). Major equipment included the following: steam generator, turbine-generator, cooling tower/circulating water system, boiler feed pump(s), coal receiving/handling equipment, pulverizers, ash-handling equipment, condensate and feedwater systems, combustion air systems, flue gas systems, on-site electrical distribution system, instrumentation and controls systems (including distributed control system), and chemical storage/transfer systems.)

Staff reviewed startup package sign off sheets. Staff reviewed six startup packages of major equipment. Staff toured site on 08-08-10 and 08-09-10.

Unit has satisfied this criterion.

6. Sufficient transmission interconnection facilities shall exist for the total plant design net electrical capacity at the time the unit is declared fully operational and used for service.

Staff reviewed transmission documentation for June 22, 2010.

Unit has satisfied this criterion.

7. Sufficient transmission facilities shall exist for EDE's share of the total plant design net electrical capacity from the generating station into the EDE service territory at the time the unit is declared fully operational and used for service.

*Staff reviewed transmission documentation for June 22, 2010.
Unit has satisfied this criterion.*

8. Equipment installed to comply with emission requirements shall be operational and demonstrate the ability to remove 93% or more of the NO_x, SO₂, particulate, and mercury emissions they were installed to remove over a continuous four (4) hour period while operating at or above 95% of its design load. This equipment shall also be required to demonstrate that it is able to remove 88% or more of these same emissions it was installed to remove over a continuous 120 hour period while operating at or above 80% of its design load. Clarification: Each equipment system as set forth in Subparagraphs (a) – (d) below was evaluated for successful completion of in-service testing on an individual basis. The CEMS has been calibrated - Subparagraph (e).

Unit has satisfied this criterion.

a) NO_x Control Equipment

i. All major construction work is complete.

Staff toured site on 08-08-10 and 08-09-10.

ii. All preoperational tests have been successfully completed.

Staff reviewed startup package signoff sheets.

iii. Equipment successfully meets the operational contract guarantees necessary to achieve the emission levels described in subparagraphs (a)(iv) and (a)(v) below.

iv. The equipment shall be operational and demonstrate its ability to operate at a NO_x emission level of less than or equal to 0.075 lb/MMBtu over a continuous four (4) hour period while the generating unit is operating at or above 95% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved 0.06 lb/MMBtu for 4 hours.*

- v. The equipment shall also demonstrate its ability to operate at a NO_x emission level of less than or equal to 0.080 lb/MMBtu over a continuous 120-hour period while the generating unit is operating at or above 80% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved less than 0.070 lb/MMBtu for 120 hours.*

b) SO₂ Control Equipment

- i. All major construction work is complete.

Staff toured site on 08-08-10 and 08-09-10.

- ii. All preoperational tests have been successfully completed.

Staff reviewed startup package signoff sheets.

- iii. Equipment successfully meets the operational contract guarantees necessary to achieve the emission levels described in subparagraphs (b)(iv) and (b)(v) below.

- iv. The equipment shall be operational and demonstrate its ability to operate at a SO₂ emission level of less than or equal to 0.11 lb/MMBtu over a continuous four (4) hour period while the generating unit is operating at or above 95% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved less than 0.0973 lb/MMBtu for 4 hours.*

- vi. The equipment shall also demonstrate its ability to operate at a SO₂ emission level of less than or equal to 0.115 lb/MMBtu over a continuous 120-hour period while the generating unit is operating at or above 80% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved less than 0.11 lb/MMBtu for 120 hours.*

c) Particulate and Opacity Control Equipment

- i. All major construction work is complete.

Staff toured site on 08-08-10 and 08-09-10.

- ii. All preoperational tests have been successfully completed.

Staff reviewed startup package signoff sheets.

- iii. Equipment successfully meets the operational contract guarantees necessary to achieve the emission levels described in subparagraphs (c)(iv) and (c)(v) below.
- iii. The equipment shall be operational and demonstrate its ability to operate at a stack opacity (one hour rolling average) less than or equal to 5.4% over a continuous four (4) hour period while the generating unit is operating at or above 95% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved less than 0.38% for 4 hours.*

- iv. The equipment shall also demonstrate its ability to operate at a stack opacity (one hour rolling average) less than or equal to 5.7% over a continuous 120-hour period while the generating unit is operating at or above 80% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved less than 3.05% for 120 hours.*

d) Mercury Removal Equipment

- i. All major construction work is complete.

Staff toured site on 08-08-10 and 08-09-10.

- ii. All preoperational tests have been successfully completed.

Staff reviewed startup package signoff sheets

- iii. Equipment successfully meets the operational contract guarantees necessary to achieve the emission levels described in subparagraphs (d)(iv) and (d)(v) below.
- iii. The equipment shall be operational and demonstrate its ability to operate at a mercury emission level of less than or equal to 84×10^{-6} lb/MWhr(gross) over a continuous four (4) hour period while the generating unit is operating at or above 95% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved less than 31.7×10^{-6} lb/MWhr(gross) for 4 hours.*

- v. The equipment shall also demonstrate its ability to operate at a mercury emission level of less than or equal to 89×10^{-6} lb/MWhr(gross) over a continuous 120-hour period while the generating unit is operating at or above 80% of its design load (665 MWnet).

*Staff reviewed August 2010 operating data for unit
Unit achieved less than 64.4×10^{-6} lb/MWhr(gross) for 120 hours.*

e) Continuous Emissions Monitoring System

- i. Continuous emission monitoring systems (CEMS) are operational and demonstrate the capability of monitoring the emissions to satisfy the parameters in paragraph 8 or subparagraphs (a) through (d).

Staff review CEM certification document.

APPENDIX A

Parameter	Unit 1 Design Emissions Criteria per Contract Documents	4 hour test: 93% Removal of Design Criteria at 95% of Design Load (665 MW net)	120 hour test: 88% Removal of Design Criteria at 80% of Design Load (665 MW net)
NO_x	Emissions ≤ 0.070 lb/MMBtu	Emissions ≤ 0.075 lb/MMBtu	Emissions ≤ 0.080 lb/MMBtu
SO₂	Emissions ≤ 0.10 lb/MMBtu	Emissions ≤ 0.11 lb/MMBtu	Emissions ≤ 0.115 lb/MMBtu
Particulate and Opacity*	Opacity ≤ 5% (1-hour rolling average)	Opacity ≤ 5.4%	Opacity ≤ 5.7%
Mercury	Emissions ≤ 78 X 10 ⁻⁶ lb/MWhr (gross)	Emissions ≤ 84 X 10 ⁻⁶ lb/MWhr (gross)	Emissions ≤ 89 X 10 ⁻⁶ lb/MWhr (gross)

*Note: The contractual guarantees also provide a 6-minute average value of 10% opacity.

